URS

November 13, 2002

Ms. Jocelyn Karazsia National Marine Fisheries Service 11420 N. Kendall Drive, Suite 103 Miami, Florida 33176

RE:

PREAPPLICATION MEETING AND SITE VISIT RUNWAY SAFETY AREA FEASIBILITY STUDY KEY WEST INTERNATIONAL AIRPORT MONROE COUNTY, FLORIDA

Dear Ms. Karazsia:

A pre-application meeting and site visit will be conducted to further discuss the feasibility of implementing the proposed improvements to the Runway Safety Area at the Key West International Airport. The purpose of the meeting will be to discuss the proposed project, permitting issues and concerns, and the development of conceptual mitigation strategies. A review of the project site will be conducted.

The meeting will be held at the Key West International Airport at 1:00 p.m. on Thursday, December 5, 2002. The meeting will convene in the Board Room located in the administrative offices in the passenger terminal building. The airport is located at 3491 S. Roosevelt Boulevard, Key West Florida.

An agenda and summary of agency comments will be sent to you prior to the meeting.

We appreciate your time and consultation on this matter.

Sincerely,

URS CORPORATION

Peter M. Green, AICP

Senior Airport Environmental Planner

Copy:

Mr. Peter Horton, Monroe County/Key West International Airport

Ms. Virginia Lane, Federal Aviation Administration

Mr. Mil Reisert, URS Corporation Mr. George Feher, URS Corporation

URS Corporation 7650 West Courtney Campbell Causeway Tampa, FL 33607-1462 Tel: 813.286,1711 Fax: 813.287.8591



November 13, 2002

Allen Webb Fish and Wildlife Biologist South Florida Ecological Services Office 1339 20th Street Vero Beach, Fl 32960 - 3559

RE:

PREAPPLICATION MEETING AND SITE VISIT RUNWAY SAFETY AREA FEASIBILITY STUDY KEY WEST INTERNATIONAL AIRPORT MONROE COUNTY, FLORIDA

Dear Mr. Webb:

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RSA Feasibility Study Key West International Airport

Meeting Date: Meeting Location:

December 5, 2002 Key West International Airport

NAME	REPRESENTING	PHONE	E-MAIL
PETER CHEEN	URS	8136756556	peter-green@urscorp.com
BART Vernace	FAA	4078126331 X27	bart verna aca faa gov
ANDREW GUE	USFUS	305-872 5563	ANONEW - GNOE @ FILS - GOV
Jocelyn Karazsia	NOAA/NMFS	365.595.8352	Joselyn, Karazsia 2 noaa ig
Paul Kruger	USACOE	305 526-7185	pulle. Krugue soj dz usace any
Virginia Lane	FAA	553407812-6331479	
George G. Fele	URS	(813) 286-1711	george-fele @urscorp.com
PETERHORTON	KWIA	305-292-3518	hortonge mail state fl. us
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URS Corporation

URS

Meeting Documentation

Project:

Key West International Airport - RSA Feasibility Study

Meeting Date/Time: December 5, 2002 / 1:00 p.m. EST

Meeting Location:

Key West International Airport

Key West, Florida

Attendees:

Andrew Gude, US Fish and Wildlife Service (FWS)

Jocelyn Karazsia, National Marine Fisheries Service (NMFS)

Paul Kruger, US Army Corps of Engineers (USACOE) Bart Vernace, Federal Aviation Administration (FAA) Virginia Lane, Federal Aviation Administration (FAA) Peter Horton, Key West International Airport (KWIA)

George Feher, URS Corporation (URS) Peter Green, URS Corporation (URS)

Authored By:

Peter Green, URS Corporation

George G. Feher, URS Corporation

Subject:

Field Review Meeting for Proposed RSA Improvements

The following is a summary of topics discussed:

- 1. URS opened the meeting with a brief overview of the project and a summary of issues identified in the agency comment letters.
- 2. USACOE questioned the purpose of the RSA project and expressed concern about a potential future runway extension within the proposed RSA. The concern was related to USACOE desire to evaluate a planned, the USACOE recommends submitting all projects in one application.

It was discussed that the RSA project has independent utility and is needed for existing airport operations. It was acknowledged by Mr. Horton that additional runway length is being considered in the update of the airport master plan to address operational issues, but that the RSA project is a currently needed improvement to address safety. It was noted that plans for an extension have not been approved locally and there is no established time frame for pursuing the extension. It was further noted by FAA by that linking the needed RSA project with a runway extension could unnecessarily delay the NEPA and permit process for the safety improvements. Mr. Horton stated that any proposal for additional runway length would have to be reviewed on its own merits; and that such projects must first be approved by the Monroe County Board of County Commissioners (BOCC) before such a project can begin.

USACOE said that a permit for the RSA will very likely include restrictions on future use and development of the RSA. In addition, on-site mitigation would place further restriction on the airport property. These may include, but not be limited to, a Conservation Easement (CE) in perpetuity over the mitigation area to limit land use, long-term monitoring of associated mitigation to guarantee that success criteria have been met and possible other restrictions.

- 3. USACOE said that secondary impacts related to the fill project and cumulative impacts related to increased passengers are a significant concern. It was noted by the FAA that the RSA project would not induce demand or alter the operation of the airport. URS noted that secondary impacts would be addressed in the NEPA environmental review and permit application process.
- 4. USACOE mentioned that the Navy is currently addressing a similar project at Boca Chica Naval Air Station. The Navy's consultant will likely propose a safety area that will support hydric vegetation. The RSA for the Key West International Airport should evaluate designing the RSA so that aircraft and equipment is supported but that wetland grasses, or other herbaceous vegetation (only) would be allowed to vegetate the RSA. The proposal could be presented as a wetland conversion as opposed to a wetland taking. USACOE stated they could not guarantee that credit for such action would be given by all federal or state agencies involved in the permitting process. FAA said they would check with their environmental staff to see if this is an acceptable option. URS indicated the plan would also have to be acceptable to State permitting agencies.
- 5: FWS asked that alternatives be evaluated to avoid or reduce wetland and habitat impacts. It was noted by URS that the scope of the study and FAA requirements are to first evaluate the standard RSA. NMFS and USACOE stated that alternatives need to be considered and well documented.
- 6. During the course of discussion, FWS, NMFS, and USACOE stated that on-site mitigation of impacts is strongly preferred. If off-site mitigation would be presented, it would only be considered in the lower keys.
- 7. The discussion adjourned and the attendees conducted a field review of the proposed RSA impact areas.
 - This included the east approach to the runway, primarily the Runway Protection Zone (RPZ) with its trimmed mangroves,
 - The northern 250 ft. wide area comprised of trimmed mangroves, caprock covered by saltgrass, and open water with seagrass, and
 - The west approach to the runway comprised of shallow salt ponds and uplands in the RPZ.

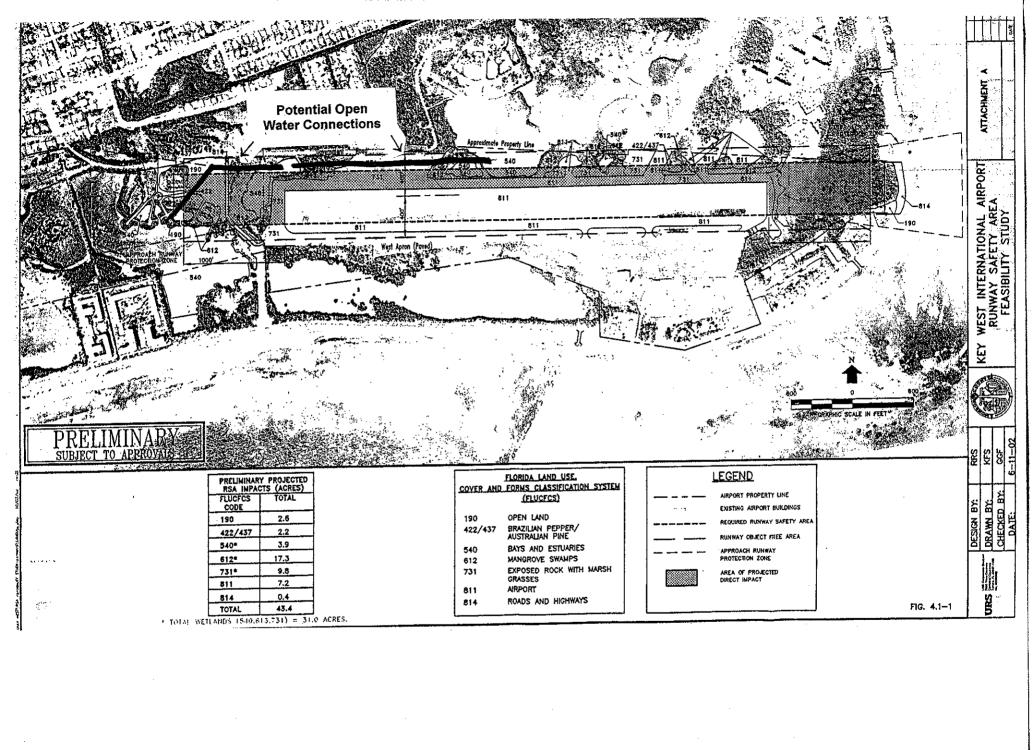
The most sensitive area from the standpoint of impacts would be the open water and associated seagrass community. After the field review, the attendees reassembled in the airport conference room for further discussion. A summary of the matters discussed included:

- Try to maintain hyrdic vegetation in the fill area on east end of the runway.
- Consider "relocating" the small pond located off of the west end of the runway.
- Consider connecting small isolated ponds. Consider connecting ponds to the east and north of
 the airport with the ponds on the west side of the airport through a continuously wet, permanent
 connection along the north side of the runway. This will improve flows and possibly a net
 increase in salt pond area (See attached aerial).
- Try to have as much mitigation as possible on-site (in the salt ponds) before considering off-site mitigation.
- Check with the Navy's consultant to obtain information on promoting hydric vegetation in a RSA.
- Consider removing the abandoned runway and blimp pad fill north of the runway as mitigation.
 There is a question of ownership that will have to be addressed and such an effort will most likely involve the City of Key West.
- The Florida Keys Environmental Restoration Trust Fund may be an option for some mitigation. However, FWS and NMFS may not consider use of the FKERTF as adequate mitigation.
- Consider seagrass restoration as one method of achieving mitigation.

The permit process for the standard RSA will need to address a No-Action Alternative; potential
of project to increase capacity; and address other alternatives and why they were not selected.
All items have to be well documented.

This is my understanding of the matters discussed. If there are any discrepancies or omissions, please contact me as soon as possible at (813) 675-6556.

Peter M. Green URS Corporation





"Jocelyn Karazsia" <Jocelyn.Karazsia@no aa.gov>

To: Peter_Green@urscorp.com

CC

Subject: Re: Key West RSA Mitigation Meeting

02/19/03 08:01 AM

Hi Peter.

Thanks for your response to my inquiry regarding the alternatives analysis. I look forward to reviewing the document when it becomes available.

The natural gas pipeline meeting that I had scheduled for Thursday 20 Feb has been postponed. Therefore, I will be able to participate in the Key West RSA meeting via teleconference. At your convenience, please provide the dial-in information.

Thanks, Jocelyn

Peter_Green@URSCorp.com wrote:

> Jocelyn,

> The NOAA Fisheries comments and input you had provided at the October 9, 2002 and December 5, 2002 meetings, as well as the comments and information provided the NOAA Fisheries letter dated October 28, 2002, are significant and will be given due consideration during the course of the Runway Safety Area (RSA) Feasibility Study. We understand that the position of NOAA is that the Federal Aviation Administration and Monroe County include a detailed analysis of alternatives to avoid and/or minimize impacts to the salt pond system and mangrove habitat at the Key West Airport, including a no-action alternative. Further, you had requested that the analysis document why certain alternatives are considered not practicable or are not being considered.

> As discussed in our meetings and in the response to agency comments
> distributed at the December 5, 2002 meeting, the FAA must first make a
> determination about the practicability of obtaining a RSA that meets design
> standards through a traditional graded area around the runway. Safety is
> FAA's highest priority in the aviation system, and a determination of
> practicability is based primarily on whether the provision of a RSA is
> either technically feasible and/or financially feasible. The scope of the
> current study is limited to evaluating the feasibility of obtaining
> environmental permits and identifying probable mitigation strategies and
> costs for a standard RSA. If the FAA's decision is that a standard RSA is
> not practicable, then an evaluation of other options to provide additional
> RSA will be conducted.

> In any case, the County's request for federal assistance to improve the RSA > will require a detailed review of environmental impacts under the National > Environmental Policy Act of 1969. Reasonable alternatives, including the > no-action alternative, would be thoroughly examined in the NEPA review > process.

> The meeting on February 20, 2003, is to present and discuss the preliminary > mitigation strategies developed by URS for the standard RSA. The > discussion will include the opportunities and constraints of on-site > mitigation and off-site mitigation. The intent is to continue dialogue > with the involved agencies and to obtain additional feedback as URS > prepares the Feasibility Study for submission to the FAA and County.

> Peter

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> Peter M. Green, AICP
> Sr. Airport Environmental Planner
> URS CORPORATION
> 7650 West Courtney Campbell Causeway
> Tampa, Florida 33607-1462
> Office 813.286.1711
> Direct 813.675.6556
> Fax 813.636.2400
> peter_green@urscorp.com
> - - - Copy of Original Message - - -
  "Jocelyn
                        Karazsia"
                                                 To:
  <Peter_Green@URSCorp.com>
                        <Jocelyn.Karazsia
> andrew_gude@fws.gov, jocelyn.Karazsia@noaa.gov,
                        @noaa.gov>
> Paul.E.Kruger@saj02.usace.army.mil,
                                                   George_Feher@URSCorp.com,
> Virginia Lane/ASO/FAA@FAA
                        01/27/2003 04:35
                                                  Subject: Re: Key West RSA
> Mitigation Meeting
                        PM
> Hi Peter,
> Unfortunately, I will not be able to attend the Feb 20 meeting, due to a
> scheduling conflict.
> On October 28, 2002 and at the December 5, 2002 on-site meeting, NOAA
> Fisheries requested a detailed analysis of alternatives to the proposed
> action including the use of Engineering Materials Arresting Systems, a
> smaller-scale project, a combination of both the aforementioned
> alternatives, use of the Marathon and Miami International Airports, and
> the no action alternative. Will this be discussed at the February 20
> meeting? If these alternatives are not practicable, we again request
 > that you provide supporting documentation for our review. Please provide
 > NOAA Fisheries with a status of your review of the requested
 > information.
> Thanks,
 > Jocelyn L. Karazsia
 > Ecologist
 > NOAA Fisheries
 > Habitat Conservation Miami Field Office
 > ----- Original Message -----
 > From: <Peter_Green@URSCorp.com>
 > Date: Monday, January 27, 2003 3:33 pm
 > Subject: Key West RSA Mitigation Meeting
 > > Andrew / Jocelyn / Paul:
 > > This note is to confirm a meeting at the SFWMD District office in
 > > Beam on February 20th at 1:30 p.m. The purpose of the meeting is to
 > present and discuss mitigation strategies being evaluated for the
 > > RunwaySafety Area feasibility study. We will provide information
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> > and project
> > drawings in advance of the meeting.
> >
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> >
> Peter M. Green, AICP
> > Sr. Airport Environmental Planner
> URS CORPORATION
> > 7650 West Courtney Campbell Causeway
> Tampa, Florida 33607-1462
> > Office 813.286.1711
> > Direct 813.675.6556
> > Fax 813.636.2400
> > peter_green@urscorp.com

Jocelyn.Karazsia.vcf



Andrew_Gude@fws.go

•

03/04/03 01:30 PM

To: Peter_Green@URSCorp.com

cc: Jocelyn.Karazsia@noaa.gov, Paul.E.Kruger@saj02.usace.army.mil

Subject: Re: Comments - Key West Airport RSAs

Peter,

I saw a draft of what NMFS sent regarding the last meeting in West Palm on the Key West Airport RSAs. In short, the Service supports NMFS's points and position. If you have any questions please phone. Thank you.

Andrew Greiff Gude

U.S. Fish and Wildlife Service Biologist
Ecological Services Big Pine Key SubOffice
P.O. Box 510, Big Pine Key, Florida Keys 33043-0510
Phone 305.872.5563, Fax 305.872.3469
Andrew_Gude@FWS.Gov
http://verobeach.fws.gov/

ATTENDANCE ROSTER

RSA Feasibility Study Key West International Airport

Meeting Date: Meeting Location:

February 20, 2003 South Florida Water Management District Office West Palm Beach, Florida

NAME	REPRESENTING	PHONE	E-MAIL
PETER GREEN	URS	813-675-6556	Peter-Green @urscorp.com
George G. Feher	Feber Enviro	727-403-6742	george - fehor@ URSCORP. 014 gfehor@ tampatay. r. com
Ted Murray	URJ	813-636-2149	Winginia. Jane @ Faa. Ser
Mityinia Lune	FAA	407-812-6331 429	virginia. lane @ Faa. sov
Anita Bain	SFWMD	201-1082-4866	abain@ Sfuma.gov
Ron Reekstoh	SFWMD	561-682-6956	rpeeksta sfund gov
Paul Kruger	COE		
Joseph Karazsia	NMFS		
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URS Corporation

POTENTIAL MITIGATION SITES FOR RSA IMPROVEMENTS KEY WEST INTERNATIONAL AIRPORT

The Monroe County Board of County Commissioners and the Federal Aviation Administration are evaluating the feasibility of providing a standard Runway Safety Area (RSA) for Runway 9/27 at the Key West International Airport (KWIA). Construction of a standard RSA at Key West International Airport will impact approximately 31 acres of wetlands. Impacts have been separated by wetland type and quality of wetland. Table 1 summarizes the anticipated wetland impacts.

Mangrove wetlands that have not been trimmed for safety reasons have been designated as high quality, mangrove wetlands that have been trimmed to a minimum of 2 feet in height have been designated as medium quality, and mangrove wetlands that have been trimmed to the ground have been designated as low quality. Open water salt pond wetlands that support diverse wetland vegetation have been designated as high quality, while salt pond wetlands that lack vegetation diversity have been designated as medium quality. Tidally influenced areas of cap rock that support some grasses have been designated as low quality.

As part of this feasibility study URS has been tasked with exploring potential mitigation options to compensate for the wetland impacts. URS has identified 17 potential mitigation sites representing approximately 103 acres of potential wetland creation and 54 acres of potential wetland enhancement (See Table 2 for a summary of acreage provided by each site). These sites are located throughout the lower Keys from Key West to Ohio Key. See Figure 1 for general site locations. In general these sites will provide flexibility as to the type of mitigation (salt marsh, mangrove, open water) performed.

Potential mitigation sites were identified and mapped through review of aerial photography of the lower keys and meetings and conversations with land management agencies. Agencies contacted concerning potential mitigation opportunities included the U.S. Fish and Wildlife Service (USFWS) National Key Deer Refuge, the Florida Fish and Wildlife Conservation Commission (FFWCC), the Florida Keys Restoration Trust Fund, the Nature Conservancy, the Monroe County Land Authority, and the City of Key West.

Potential sites were located, identified, and mapped and acreages were calculated on aerial photographs ranging in scale from 1:100 to 1:500. Sites that were readily accessible were visited and evaluated for suitability.

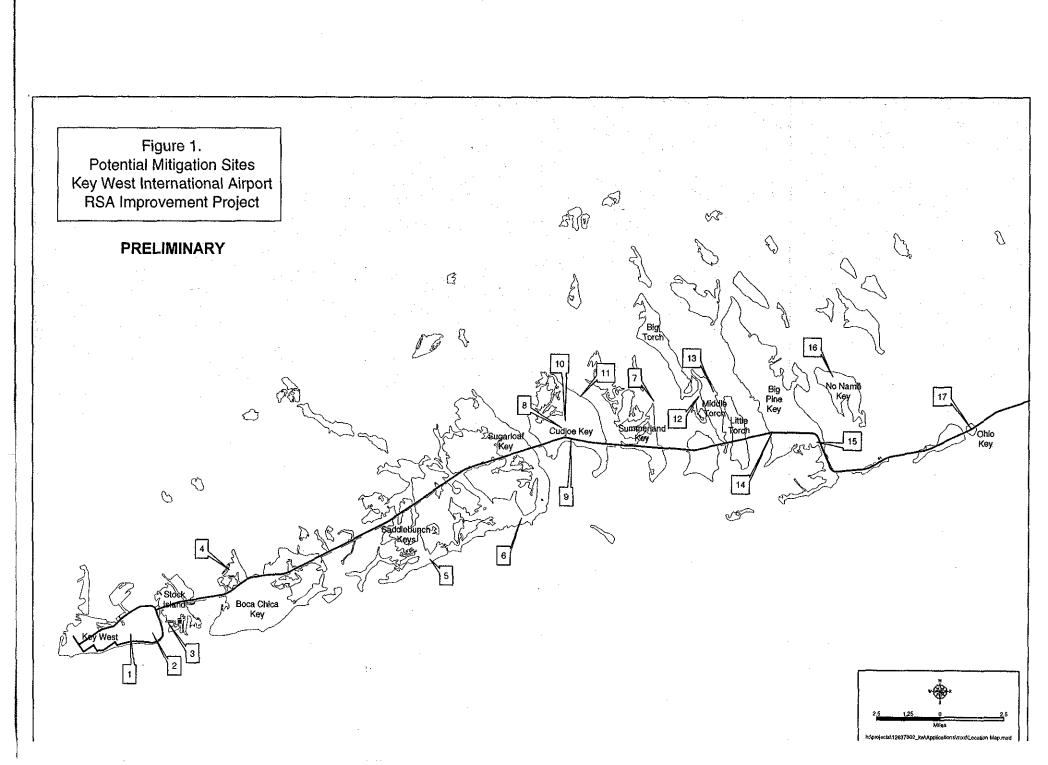
Potential mitigation at the majority of the sites includes restoration of former wetlands by fill removal and replanting or the enhancement of existing wetlands by the filling of dredge holes or enhancement of tidal flushing. Restoration of borrow pits and limestone mines is assumed to be in the form of removal of fill along the pit edges to create wetland habitat. Filling of the open water portions of the pits to reestablish salt marsh and mangrove wetlands was not considered due to limitations on the availability of large amounts of suitable fill material.

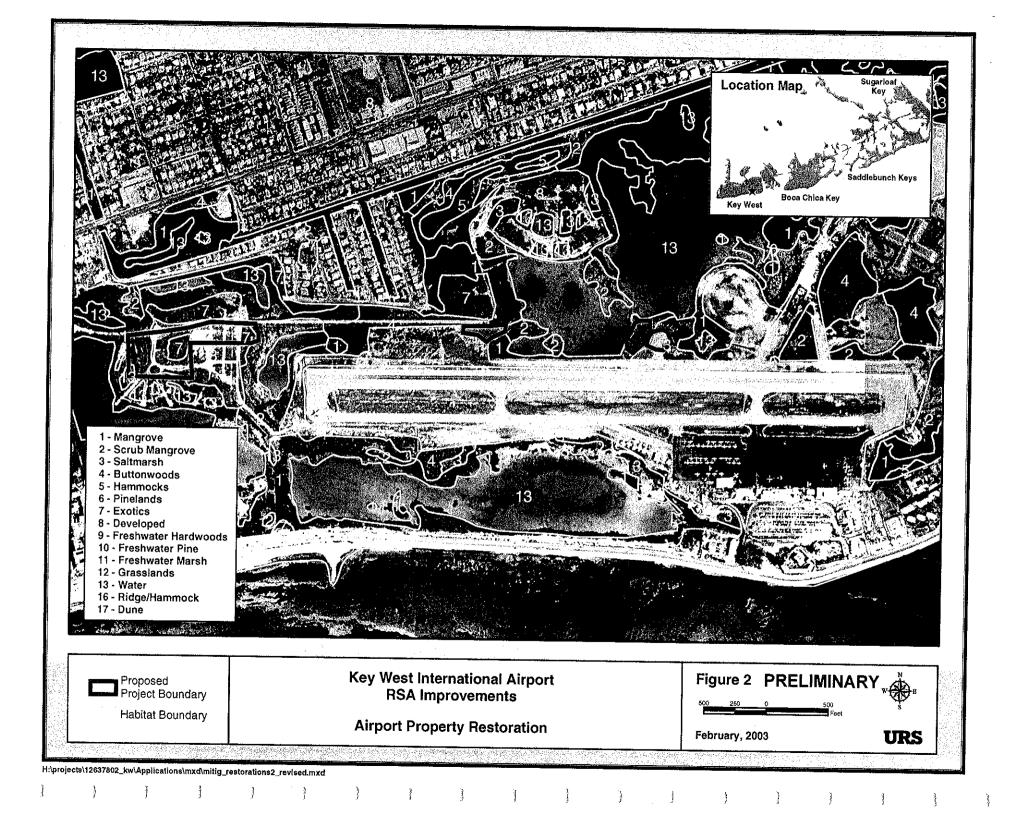
The following is a list of potential sites and descriptions of potential mitigation that can be performed at these sites:

Key West

1. Airport Property Restoration

Approximately 7 acres of disturbed uplands located on airport property are available to be used for wetland mitigation (see Figure 2). This includes 5.4 acres of upland located west of Runway 9 at the missile bunker site and 1.6 acres of disturbed upland located north of the proposed RSA along the salt ponds. These uplands are proposed to be scraped down to create a combination of open water, salt marsh, and mangrove wetlands.





Project Benefits: 7 acres of on-site wetland creation/restoration. Increased circulation within the salt ponds.

Proiect Constraints: Coordination with the State Historic Preservation Officer (SHPO) to obtain approval to impact the bunker site.

Cost: TBD

2. City of Key West Property Restoration

Approximately 11.5 acres of disturbed uplands controlled by the City of Key West and located on the northeast property boundary of the airport can be restored to wetlands (see Figure 3). This includes 5.3 acres that appear to be a former runway and 6.2 acres of area that are currently being used as a fill stockpile. A review of property records indicates that this area is leased to the City of Key West by Monroe County. A former missile site located to the north of the airport and located on property controlled by the City of Key West could also provide up to 8.2 acres of potential mitigation. This area appears to be previously filled wetlands that could be returned to wetland grade as mitigation. This site has not been included in the list of available sites since several radio antennas currently occupy portions of the site, and it is unknown how many actual acres may be available. Coordination with the City may identify some fill removal in portions of the missile site.

Project Benefits: 11.5 acres of on-site wetland creation/restoration. Increases wetland habitat within the salt ponds.

Project Constraints: An agreement with the City of Key West will be required to utilize these sites.

Cost: TBD

Stock Island

Cow Key Road Removal

This project consists of the removal of a 1,100-linear-foot section of roadway that connects Stock Island and Cow Key and removal of 600 linear feet of roadway from a mangrove swamp on Cow Key. The project also includes the removal of a 1,800-foot-long finger fill that extends from the road to the west (see Figure 4).

Project Benefits: 5.6 acres of restoration of open water/bay habitat and mangrove wetlands. Additionally the road removal will allow flushing of a 3-acre open water area that is currently impounded.

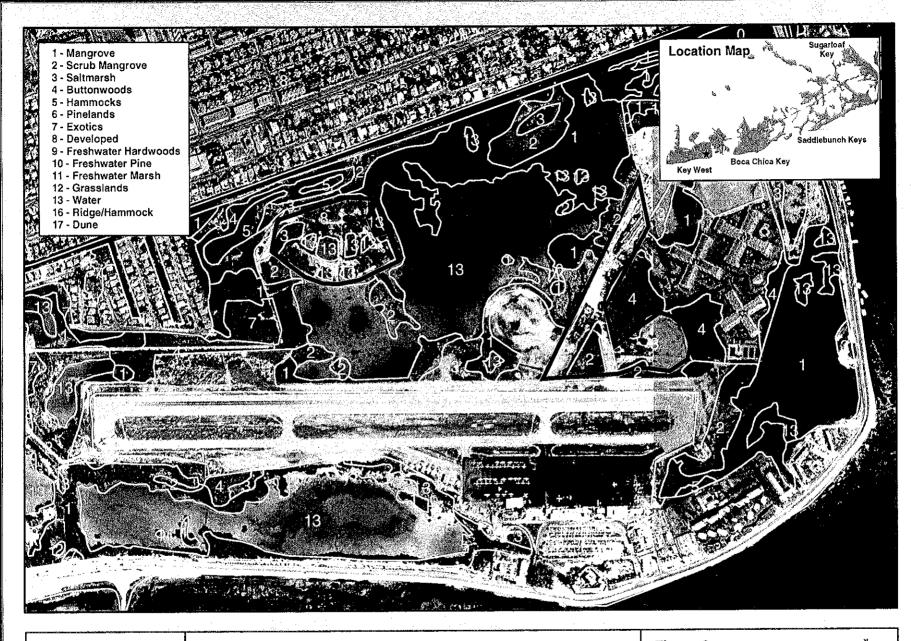
Project Constraints: Area is under private ownership and will need to be acquired. Removal of the finger fill may be unpopular with adjacent waterfront property owners due to the shelter it provides from south winds.

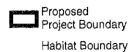
Cost: TBD

Boca Chica

North Boca Chica Restoration

This project consists of the restoration of a dredged and filled wetland back to salt marsh/mangrove habitat in an area located on the northwest corner of Boca Chica Naval Air Station (see Figure 5). The area appears to have been filled and dredged to create finger fills and canals either for residential development or military use. Material from the finger fills could be used to return the canals and dredge area back to sait marsh/mangrove swamp grade. The finger fills would be removed back to wetland grade. Additionally, a finger fill jetty would be removed to enhance tidal flushing.

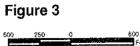




Key West International Airport RSA Improvements

PRELIMINARY

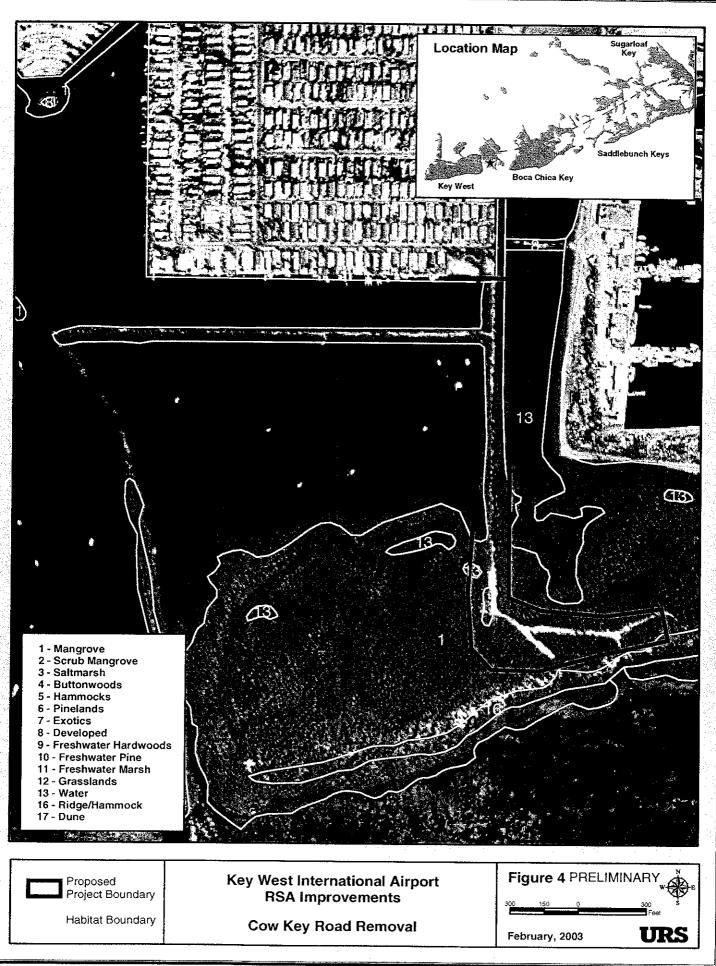
City of Key West Property Restoration

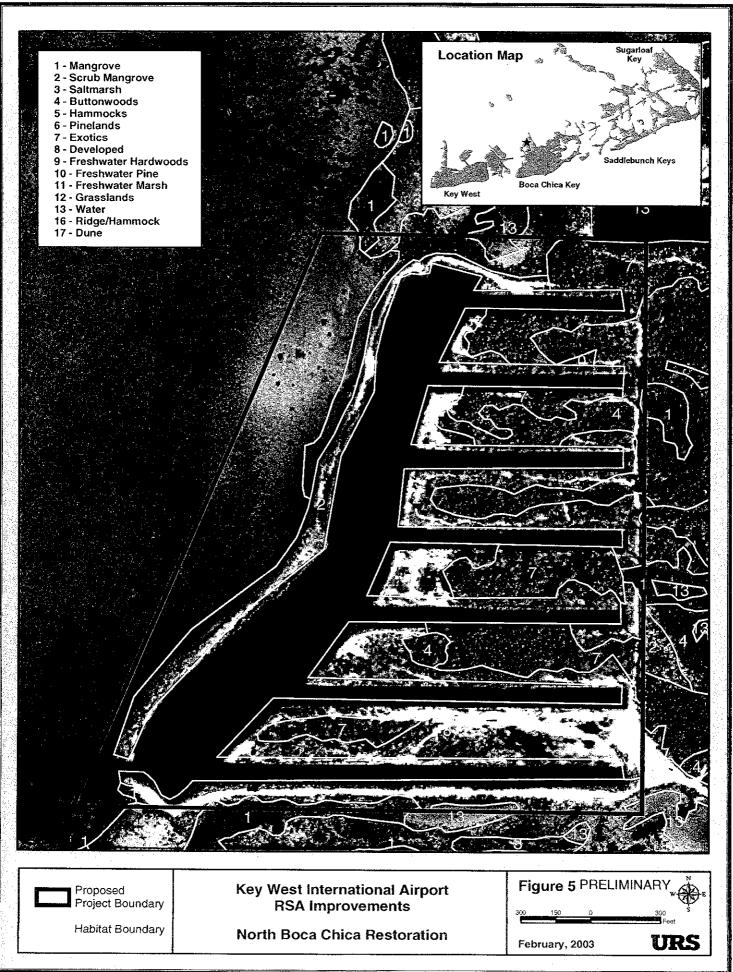




February, 2003

URS





Project Benefits: 40 acres of salt marsh/mangrove swamp restoration 15 acres of open water/dredged bottom enhancement

Project Constraints: Area is thought to be under private ownership; however, access is through U.S. Navy property. Acquisition of property is required.

Cost: TBD

Sugarloaf Keys

5. USFWS Key Deer Refuge Road Removal

The project would result in the removal of approximately 1,750 feet of old State Road 4A from mangrove wetlands on property owned by the Key Deer Refuge (see Figure 6). This project is advocated by the refuge; however, refuge staff indicate that a boardwalk would have to be constructed to maintain public access to portions of the refuge property.

Project Benefits: 1.5 acres of mangrove swamp restoration. The property is under public ownership and would not have to be acquired.

Project Constraints: Construction of a boardwalk.

Cost: TBD

6. Sugarloaf Loop Road Removal and Limestone Quarry Restoration

The project consists of the removal of portions of a privately owned loop road from mangrove wetlands. The road has limited blocked access due to USFWS refuge property. Approximately 4,650 linear feet of road could be removed from mangrove swamps. Portions of the loop road located in uplands would be left in place. Additionally, edges of a limestone quarry located adjacent to the road could be scraped down and converted to sait marsh/mangrove wetlands (see Figure 7).

Project Benefits: 4.2 acres mangrove swamp restoration from the road removal.

3.2 acres of salt marsh/mangrove wetland restoration at the limestone quarry.

Project Constraints: The site is under private ownership and will need to be acquired. A large amount of property may have to be acquired to obtain rights to the road.

Cost: TBD

Summerland Key

7. Summerland Key Bridge Removal

This project would result in the removal of a wooden bridge that connects Summerland Key to Wahoo Key (see Figure 8). Fill associated with the bridge pads and approaches would also be removed. The property is owned by the USFWS and FFWCC. This project was recommended by Key Deer Refuge staff.

Project Benefits: Enhancement of 3,100 square feet of bay bottom and removal of 0.08 acre of fill from mangrove wetlands. The site is under public ownership and will not require acquisition.

Project Constraints: Access to the site is over a poorly maintained road.

Cost: TBD